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"ACUTE SCROTUM": UNSOLVED DIAGNOSTIC AND THERAPEUTIC PROBLEMS

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The syndrome "acute scrotum" seems to be well known by the common physicians and by the specialists. The high percentage of diagnostic errors and operatively removed testicles, however, supports the opinion that still there are a lot of unsolved problems concerning diagnosis and treatment (4). All they justify the interest and the attempts for creating a principal conception in "acute scrotum" pathology.

We'd like to share our experience in the diagnosis and treatment of the syndrome "acute scrotum" based on the material of 850 patients for a period of 10 years.

Pain has been the leading symptom in all of the patients, localized in 54% in the affected hemiscrotum; inguinal pain - in 27%; low abdominal pain - in 18%. Physical examination revealed in 77% oedema and infiltration in the affected hemiscrotum; local erythema-in 51%; tenderness-in 54%; high local temperature - in 36%; positive symptoms of Brunzel and Prehn-in 44% and 84%, resp. Beside accurately taken anamnesis and physical examination, mainly in the last years, some special methods were used, as well: scintiscanning (57 cases), Doppler ultrasonography (77 cases) and ultrasound (82 cases).

At the first examination the differential diagnosis between testicular torsion and acute epididymitis was the most difficult of all (52% diagnostic errors). More rarely acute appendicitis, ureterolithiasis, inguinoscrotal hernia, etc., were diagnosed. Neither of the 78 patients with torsion of the testicular appendages was directed to our clinic with a correct diagnosis which shows that the disease is not known by the common physicians. In the first hours the data from the anamnesis and status as well as the experience of the physician who first meets the disease, are most important (3,8). In the late cases when the local changes are so expressed that make differential diagnosis difficult, some apparatus methods come to help. They are applied in our clinic since 1987. Doppler ultrasonography and testicular ultrasound are most useful for the routine practice. They are available almost in every clinic nowadays, the examination is not time-consuming and does not delay the operation much. The specificity of both methods in our series is 86 and 79%. resp., but when combined it reaches up to 98%. The highest specificity (100%) is that of the scintiscanning method. The lat

ter, however, is difficult to be organized and is hardly applicable in emergency cases (5). Everyone of these special methods may be useful in atypical and difficult cases but it must not lead to a delay of the operation. That is why early operative exploration of the testicle is the most reliable diagnostic method which led by us to a significant testicular salvage rate (72% against 43% in the beginning of the examined period).

Salvage of the testis depends on ist vitality which is determined mainly by the duration of the ischemic period. Our experimental studies showed clearly that the 4^{th} hour of the ischemic period is crucial for the testis. Beyond it irreversible changes in the structure occur leading inevitably to its late atrophy. Moreover, we find changes in the contralateral testis, too, which would certainly lead to fertility disorders (7). In all cases when the duration of ischemy is less than 4 hours or more than 24 hours, the surgical tactics are clear. Most difficult decisions about the volume of the operation are taken between these borderline hours. The responsibility of the surgeon is the greatest then, and he may be equally accused, either in removing a potentially vital testis, or in saving an irreversibly injured one.

Most of the surgeons define the vitality of the testis just according to its macroscopic appearance (4,8). Our experience shows that intraoperative Doppler ultrasonography may serve as an objective criterion for this assessment. The conception about the fixation of the detorsed testis as a preventive measure against recurrent torsion seems to be commonly accepted (1). Among 122 patients for a period of 12 years, we never met recurrent or contralateral torsion. Bilateral fixation is obligatory only in cases of intermittent torsion or hypermobile testis. We support the authors recommending the placement of testicular prosthesis in one stage when orchidectomy has to be done (2, 6).

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